



UNITED STATES PATENT AND TRADEMARK OFFICE

50

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/699,798	11/04/2003	Yoshiaki Miyake	Q78285	9394
23373	7590	03/25/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			ALIE, GHASSEM	
			ART UNIT	PAPER NUMBER
			3724	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

81

Office Action Summary	Application No. 10/699,798	Applicant(s) MIYAKE ET AL.	
	Examiner Ghassem Alie	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Warthen et al. (5,979,278), hereinafter Warthen. Regarding claim 1, Warthen teaches a cutting mechanism 30 or 230 for napped cloth 31 to cut a napped cloth having a single napped surface 32. The fabric 31 has a base portion 33 and a pile portion 32, which defines a napped surface. Warthen also teaches a cutting means for cutting napped cloth 31 by advancing a cutter 36 or 236 through the napped surface 32. See figs. 1-17 and col. 4, lines 7-67 and col. 7 and 7, lines 1-67 in Warthen.

Regarding claim 2, Warthen teaches everything noted above including that the cutting means 30 or 230 cuts the napped cloth 31 by moving the cutter 36 or 236 so that both V_y , a component of velocity in a direction wherein the blade extends, and V_x , a component of velocity in a direction wherein the blade of the cutter 36 or 236 extends become larger than zero. The V_y is defined by the up and down movement of the blade 36 or 236 by the cylinder 35 or 297. See Figs. 1-18 in Warthen. It should also be noted that cutting means 36 and 236 are slanted or are diagonal same as cutting means 20 of the instant application. See Fig. 11 in Warthen and Fig. 1B of the instant application. Cutting means 36, 236 moves downward with a velocity V . Velocity V can be resolved into two components in X-Y reference coordinate axes same as the instant application.

Regarding claim 4 and 5, Warthen teaches everything noted above including a fastener means to sandwich and fasten the napped cloth 31 from both sides thereof during cutting of the napped cloth. The securing mechanism 291 and the plate and the base, which supports the napped cloth 31, define the fastener means. The napped cloth 31 is sandwich between the securing mechanism 291 and the base plate. See Figs. 1-18 in Warthen.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Brocklehurst (5,018,462). Regarding claim 1, Brocklehurst teaches a cutting mechanism 15 for napped cloth 19 to cut a napped cloth having a single napped surface. Warthen also teaches a cutting means for cutting napped cloth 19 by advancing a cutter 22 through the napped surface 23. The blade 22 is capable of being advanced through any napped portion. See Figs. 1 and 2 and col. 2, lines 56-69 and col. 3, lines 1-64 in Brocklehurst.

It should be noted that since new claims 13 and 14 have been introduced, the new ground of rejection below is necessitated.

4. Claims 1, 2, 3, 13, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Bellegante (5,261,164). Regarding claim 1, Bellegante teaches a cutting machine capable of cutting napped cloth having a single napped surface. Bellegante also teaches that a cutting means 10 for cutting napped cloth by advancing a cutter 30 through the napped surface. Cutter 30 is capable of cutting a napped cloth and advancing through a napped surface. See Figs. 1-3 and col. 3, lines 10-55.

Regarding claim 2, Bellegante teaches everything noted above including that cutting means 10 cuts the napped cloth by moving cutter 30 so that both V_y , a component of velocity in a direction wherein the blade extends, and V_x , a component of velocity in a direction

Art Unit: 3724

wherein the blade of the cutter extends become larger than zero. The cutter means is capable of being moved by the cutting means 10 via a person or user in a diagonal direction that has a velocity V_x and velocity V_y coordinates. V_x in a direction orthogonal to the that the cutter 30 extends V_y becomes larger than zero while cutter 30 that is held in orthogonal direction cuts the napped cloth.

Regarding claim 3, Bellegante teaches everything noted above including that V_x/V_y a ratio of the component of velocity V_x to the component of velocity V_y stratifies $0.5 < V_x/V_y < 2.0$. The cutter is capable of cutting the napped cloth in a manner that its velocity coordinates satisfy $0.5 < V_x/V_y < 2.0$ ratio.

Regarding claims 13 and 14, Bellegante teaches everything noted above including that the napped cloth is cut apart. Bellegante also teaches that the cutting means 10 cuts the napped cloth from one side of the napped cloth through to another side of the napped cloth.

5. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Schneider et al. (4,793,033), hereinafter Schneider. Regarding claim 1, Schneider teaches a cutting mechanism for napped cloth 12 to cut a napped cloth having a single napped surface.

Schneider also teaches a cutting means 150 for cutting napped cloth 12 by advising a cutter 18 through the napped surface. The blade 18 is advanced through the napped surface in x, y, and z directions. See Figs. 1 and 2 and col. 3, lines 23-68 and col. 4, lines 1-55 in Schneider.

Regarding claim 2, Schneider teaches everything noted above including that the cutting means 15 cuts the napped cloth 12 by moving the cutter 18 so that both V_y , a component of velocity in a direction wherein the blade extends, and V_x , a component of velocity in a direction wherein the blade of the cutter 18 extends become larger than zero. The cutting

means 15 advances in x, y, and z directions and inherently has VX, Vy, and Vz components.

See Figs. 1 and 2 in Schneider.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3 and 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Warthen. Regarding claim 1, Warthen teaches everything noted above except that the V_x/V_y , a ratio of the component of velocity V_x to the component of velocity V_y satisfied the condition $0.5 < V_x/V_y < 2.0$. However, V_x/V_y ratio can be set up as is desired and according to the best cutting performance or result for the particular material to be cut. In addition, It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the ratio V_x/V_y ratio between 0.5 to 2.0, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 6, Warthen teaches everything noted above including a fastener means to sandwich and fasten the napped cloth 31 from both sides thereof during cutting of the napped cloth. The securing mechanism 291 and the plate and the base, which supports the napped cloth 31, define the fastener means. The napped cloth 31 is sandwich between the securing mechanism 291 and the base plate. See Figs. 1-18 in Warthen.

Art Unit: 3724

8. Claims 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Warthen. Regarding claim 7-12, Warthen teaches everything noted above except that the napped cloth is a light shielding cloth of a cassette for housing a photographic roll film. However, Official notice is taken that the Warthen's cutting mechanism is capable of cutting any napped cloth including a napped cloth having a light shielding cloth of a cassette for housing a photographic roll film. For example, the napped cloth having a light shielding cloth of a cassette for housing a photographic roll film as taught by Japanese Patent Publication No. 5(1993)-53256 and Patent Publication No. 7 919950-301888) can be cut by the Warthen's cutting mechanism.

9. Claim 3, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider. Regarding claim 1, Schneider teaches everything noted above except that the V_x/V_y , a ratio of the component of velocity V_x to the component of velocity V_y satisfied the condition $0.5 < V_x/V_y < 2.0$. However, V_x/V_y ratio can be set up as is desired and according to the best cutting performance or result for the particular material to be cut. In addition, It would have been obvious to one having ordinary skill in the art at the time the invention was made to set the ratio V_x/V_y ratio between 0.5 to 2.0, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Furthermore, Schneider's cutter 18 can be programmed to move in x or y directions as desired.

10. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider. Regarding claim 7-9, Schneider teaches everything noted above except that the napped cloth is a light shielding cloth of a cassette for housing a photographic roll film. However, Official

notice is taken that the Schneider's cutting mechanism is capable of cutting any napped cloth including a napped cloth having a light shielding cloth of a cassette for housing a photographic roll film. For example, the napped cloth having a light shielding cloth of a cassette for housing a photographic roll film as taught by Japanese Patent Publication No. 5(1993)-53256 and Patent Publication No. 7 919950-301888) can be cut by the Schneider's cutting mechanism.

Response to Amendment

11. Applicant's arguments filed on 12/22/04 have been fully considered but they are not persuasive.

Applicant's argument that Warthen, Brocklehurst, or Schneider does not teach that the cutter cuts a napped cloth is not persuasive. Cutters in Warthen, Brocklehurst, and Schneider are capable of cutting a napped cloth. Claims do not set forth the structural detail of the cutter in the instant invention. For example, claim 1, merely recites, "a cutting means for cutting the napped cloth by advancing a cutter through the napped surface". The cutters in Warthen, Brocklehurst, Schneider, and Bellegante are capable of cutting a napped cloth. Therefore, cutters in Warthen, Brocklehurst, Schneider, or Bellegante satisfy the structural limitations of the cutter as set forth in claim 1. It should be noted that an apparatus for cutting napped cloth has been claimed not a method of cutting napped cloth. Therefore, any apparatus that is capable of cutting napped cloth reads on the claims in the instant application, particularly claim 1. Applicant's argument that Schneider does not teach that the napped cloth or the carpet itself is cut is not persuasive. Schneider teaches that the pile of the carpet is cut. Therefore, since the pile of the carpet is part of the cart, the cutter also cuts the carpet itself. It

Art Unit: 3724

should be noted that claim 1 does not specify that the cutting means cuts the napped cloth apart as set forth in claim 13. Regarding claim, Applicant's argument that Warthen does not teach that the cutting blade moves in the lengthwise direction is not persuasive. Claim 2 does not require that the cutter move in the lengthwise direction. Cutter 36 in Warthen moves downward and is capable of moving downwardly with acute angle with respect to a vertical plane. Actuator 56 adjusts the angle of the blade with respect to the vertical plane. Cutter 36 cuts the napped cloth by moving with a certain velocity downwardly. Therefore, the downward velocity of cutter 36 has two V_x and V_y coordinates since cutter 36 moves downwardly at an angle with respect to the vertical plane. It would have been obvious to a person of ordinary skill in the art to adjusted the velocity of the blades and velocity coordinates V_x , V_y in a manner that a clean cut of the napped cloth can be performed by the cutter.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kambara et al. (5,299,513), McHenry et al. (3,173,322), Gautron (3,282,141), Ward (5,079,842), Hoppe (3,509,790), Squires (4,646,439), Slusser et al. (175,182), Yates (606,261), Eisele (4,014,230), Cavagna (4,823,665), and Exline (4,094,217) teach a cutting machine capable of cutting napped cloth.

13. ***THIS ACTION IS MADE FINAL.*** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

Art Unit: 3724

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (571) 272-4501. The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (571) 272-4514. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, SEE <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (too-free).

Application/Control Number: 10/699,798
Art Unit: 3724

Page 10

GA/ga

March 17, 2005

A handwritten signature in black ink, appearing to read 'AS' or 'ay', with a long diagonal stroke extending upwards and to the right.

Allan N. Shoap
Supervisory Patent Examiner
Group 3700